



# ANNUAL REPORT

ON THE

## HEALTH

OF THE

Borough of Chesterfield,

FOR 1909,

BY

HERBERT PECK,

M.D. Edin., D.P.H. Cambridge,

MEDICAL OFFICER OF HEALTH.

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CHESTERFIELD:

BALES & WILDE, PRINTERS, GLUMAN GATE.

1910.

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# BOROUGH OF CHESTERFIELD.

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## HEALTH COMMITTEE, 1909.

*Chairman :*

ALDERMAN J. M. CLAYTON, J.P.

*Vice-Chairman :*

ALDERMAN BOOTH, M.D., J.P.

*Members :*

The Mayor, COUNCILLOR MARKHAM, J.P.

ALDERMAN WOODHEAD, J.P.

„ WRIGLEY.

COUNCILLOR R. EYRE.

„ HADFIELD, C.C.

„ LACK.

„ LANCASTER.

„ SENIOR.

„ SPOONER.

---

*Medical Officer of Health.*

HERBERT PECK, M.D., C.M. (Edin.),  
D.P.H. (Camb.)

*Assistant Medical Officer of Health and Inspector of  
School Children :*

BETHIA S. ALEXANDER, M.B., B.C. Ch.

*Inspector of Nuisances :*

CHARLES E. WOOD, Certified Sanitary Inspector.

*Assistant Inspector of Nuisances.*

LLEWELLYN B. GODDARD,  
Certified Sanitary Inspector.

Health Office,

Saltergate,

Chesterfield,

March, 1910.

Gentlemen,

I beg to lay before you my Tenth Annual Report upon the Health and Sanitary Conditions of the Borough.

I take this opportunity of acknowledging with thanks the assistance given me at all times by Members of the Committee, Mr. Wood and other Corporation Officials.

I am, Gentlemen,

Your obedient Servant,

HERBERT PECK.

SUMMARY  
OF ANNUAL  
Health Report for 1909.

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BOROUGH OF CHESTERFIELD

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AREA.—Land and inland water, 1216 acres; inland water only, 18 acres.

ALTITUDE (average)—About 300 feet above ordnance datum.

POPULATION, Census of 1901—27,185.

ESTIMATED POPULATION, June 30th, 1909—31,243.

INHABITED HOUSES, Census of 1901—5282.

RATEABLE VALUE—£108,882 8s.

ASSESSABLE VALUE—£103,091 3s

GENERAL DISTRICT RATE.—3s. 4d. in the £.

POOR RATE—4s. 5d. in the £.

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VITAL STATISTICS, 1909, per 1000 living.

BIRTH RATE—28·4.

GROSS DEATH RATE—18·1.

DEATH RATE (Corrected for Public Institutions only)—14·6.

EPIDEMIC DISEASES DEATH RATE—1·57.

INFANT MORTALITY, per 1000 births—140.

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ISOLATION HOSPITALS—Penmore Isolation and Newbold Smallpox Hospitals.

WATER SUPPLY—From Linacre Reservoirs.

SCAVENGING AND REFUSE DISPOSAL--

NUISANCES ABATED DURING 1909—791.

TABLE I.  
Vital Statistics of Whole District during 1909 and previous years,  
in the Borough of Chesterfield.

Year.	Population estimated to middle of each year.	Births.		Total Deaths Registered in the District.				Deaths registered in Public Institutions in the District.	Deaths of Non-residents registered in Public Institutions in the District.	Deaths at all Ages.			
				Under 1 year of Age.		At all Ages.				Nett.			
		Num-ber.	Rate * per 1000 Births Registered.	Num-ber.	Rate per 1000 Births Registered.	Num-ber.	Rate * per 1000 Births Registered.			Num-ber.	Rate * per 1000 Births Registered.		
1	2	3	4	5	6	7	8	9	10	11	12	13	
1899	26,060	881	33·8	149	169	521	20·0	136	64	..	457	17·4	
1900	26,617	898	33·7	191	212	621	23·3	108	50	..	571	21·4	
1901	27,329	905	33·1	198	217	638	23·3	134	75	1	564	20·5	
1902	27,765	896	32·3	144	161	557	20·0	139	80	1	478	17·2	
1903	28,381	956	33·7	160	167	536	18·9	145	92	1	445	15·7	
1904	28,590	909	31·6	155	171	568	19·6	162	102	..	466	16·3	
1905	28,890	872	30·1	104	119	481	16·6	137	101	4	384	13·3	
1906	29,255	830	28·4	151	182	568	19·4	182	117	3	454	15·5	
1907	29,583	853	28·8	159	186	582	19·7	182	111	3	474	16·0	
1908	30,690	909	29·6	137	151	655	21·3	208	127	3	531	17·3	
Averages for years 1899-1908	28,316	891	31·5	155	174	573	20·2	153	92	2	482	17·1	
1909	31,243	888	28·4	124	139·6	565	18·1	188	116	8	457	14·6	

\*Rates in Column 4, and 8, are calculated per 1000 of the estimated gross population.

NOTE.—The deaths included in Column 7 of this Table are the whole of those registered during the year as having actually occurred within the district or division. The deaths included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term "Non-residents" is meant persons brought into the district on account of sickness or infirmity, and dying in public institutions there; and by the term "Residents" is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in public institutions elsewhere.

The "Public Institutions" taken into account for the purposes of these Tables are those into which persons are habitually received on account of sickness or infirmity, such as hospitals, workhouses and lunatic asylums. A list of the Institutions in respect of the deaths in which corrections have been made are given on the next page.

Area of District in acres  
exclusive of area covered by water } ..... 1198

Total population at all ages... ..... 27185  
Number of inhabited houses..... 5282  
Average number of persons per house... 5·146

At Census  
1901

**I. Institutions within the District receiving sick  
and infirm persons from outside the District:**

Chesterfield and North Derbyshire Hospital.  
Chesterfield Union Workhouse.

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**II. Institutions outside the District receiving sick  
and infirm persons from the District :**

County Asylum, Mickleover.  
Penmore Isolation Hospital, Hasland.

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**III. Other Institutions, the deaths in which have been  
distributed among the several localities in the  
District :**

Royal Hospital, Sheffield.  
Union Infirmary, Leeds.

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**The Union Workhouse is within the District.**

TABLE II.

## Vital Statistics of separate Localities in 1909 and previous years in the Borough of Chesterfield.

NAMES OF LOCALITIES.	THE BOROUGH.	NORTH WARD.				SOUTH WARD.				WEST WARD.				HOSPITAL.				UNION WORKHOUSE.			
		a	b	c	d	a	b	c	d	a	b	c	d	a	b	c	d	a	b	c	d
YEAR.																					
1899	26,060	881	457	149	..	..	155	52	..	8,764	..	..	213	62	..	..	202	..	..	..	..
1900	26,617	898	570	191	9,551	..	180	58	8,764	..	196	70	8,690	..	188	70	..	..	..	..	..
1901	27,329	905	564	198	9,875	..	268	38	8,763	289	162	47	8,929	..	339	161	59	..	..	..	..
1902	27,765	896	478	144	10,073	268	155	38	8,923	295	158	56	9,210	416	157	70	..	..	..	..	..
1903	28,381	956	445	160	10,248	245	130	34	8,923	314	152	48	9,309	364	167	67	..	..	..	..	..
1904	28,590	909	466	155	10,323	231	147	40	8,958	280	127	39	9,450	346	148	37	..	..	..	..	..
1905	28,890	872	384	104	10,440	246	109	28	9,000	276	153	54	9,532	321	175	62	..	..	..	..	..
1906	29,255	830	454	151	10,646	233	126	35	9,077	279	163	54	9,901	312	153	52	95	..	..	..	456
1907	29,583	853	474	159	10,425	262	158	53	8,706	326	177	51	10,250	326	182	51	107	..	..	..	463
1908	30,690	909	531	137	10,860	257	172	35	9,010	..	..	..	..	..	..	..	..	..	..	..	..
Averages of Years 1899 to 1908.	28,316	891	482	115	10,291	249	148	41	8,885	266	167	43	9,286	349	170	61	..	..	..	..	..
1909	31,243	888	457	124	11,003	240	145	30	9,110	282	149	42	10,560	366	163	52	107	..	..	..	463

Notes—(a) Deaths of residents occurring in public institutions beyond the district are included in sub-columns c of this table, and those of non-resident registered in public institutions in the district excluded. See note on Table I. as to meaning of terms "resident," and "non-resident."  
 (b) Deaths of residents occurring in public institutions, whether within or without the district, are allotted to the respective localities according to the addresses of the deceased.

TABLE III.  
Cases of Infectious Disease notified during the year 1909 in the Borough of Chesterfield.

NOTIFIABLE DISEASE.	Cases Notified in whole District.						Total Cases Notified in each Locality.						No. of Cases removed to Hospital from each Locality.									
	At Ages—Years.						North Ward						South Ward		West Ward		Hos-pital		Union Work-house		Total cases re-moved to Hos-pital	
	At all Ages	Under 1	1 to 5	5 to 15	15 to 25	25 to 65	65 and up-wards															
Small-pox ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Cholera ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Diphtheria (including Membranous croup) ..	†115	2	31	57	17	7	1	30	28	55	†2	..	..	..	..	..	..	..	..	..	..	
Erysipelas ..	..	21	1	1	4	15	..	5	3	10	1	2	..	..	..	..	..	..	..	..	..	
Scarlet Fever ..	..	272	2	74	167	13	16	..	70	57	145	..	..	..	..	37	†27	*82	..	..	..	
Typhus Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Enteric Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Relapsing Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Continued Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Puerperal Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Plague ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
<b>Totals ..</b>	<b>424</b>	<b>5</b>	<b>105</b>	<b>228</b>	<b>40</b>	<b>45</b>	<b>1</b>	<b>108</b>	<b>93</b>	<b>215</b>	<b>4</b>	<b>4</b>	<b>41</b>	<b>28</b>	<b>82</b>	<b>..</b>	<b>..</b>	<b>151</b>	<b>..</b>	<b>..</b>	<b>..</b>	

† Two from outside the Borough. † One not Scarlet Fever. \* One Croupous Pneumonia, not Enteric Fever.

ISOLATION HOSPITALS—Names and Situation—Penmore Isolation Hospital, HASLARD, CHESTERFIELD RURAL DISTRICT, and NEWBOLD Small-pox Hospital Newbold Urban District, see page 30. Total available beds, 57; number of diseases that can be concurrently treated 4.

TABLE IV.

**Causes of, and Ages at, Death during the Year 1909,  
in the Borough of Chesterfield.**

CAUSES OF DEATH.	DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING IN OR BEYOND THE DISTRICT.							Deaths at all ages of "residents" belonging to localities whether occurring in or beyond the district.							Total Deaths whether of resid'ts or non-resi- dent in public Insti- tutions in the District.
	All Ages.	Under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards	North Ward	South Ward	West Ward	Hospital.	Union w'k house.			
Small-pox .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles .. ..	9	2	7	..	..	..	..	2	3	4	..	..	..	..	..
Scarlet Fever .. ..	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..
Whooping-cough .. ..	2	1	1	..	..	..	..	..	1	1	1	..	..	..	..
Diphtheria and Mem- branous Croup .. ..	10	2	6	2	..	..	..	1	6	3	2	..	..	..	2
Croup .. ..	1	..	1	..	..	..	..	..	1	..	..	..	..	..	..
Typhus { Enteric Fever Other continued	1	..	..	..	1	..	..	..	1	..	..	..	..	..	..
Epidemic Influenza .. ..	2	..	..	..	..	1	1	..	1	1	1	..	..	..	..
Cholera .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Plague .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhoea .. ..	18	14	3	..	..	..	1	3	12	3	..	..	..	..	..
Enteritis .. ..	9	8	..	..	..	..	1	..	2	7	2	..	..	..	2
Gastritis .. ..	2	2	..	..	..	..	..	..	1	1	..	..	..	..	..
Puerperal Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas .. ..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
Phthisis (Pulmonary Tuberculosis) .. ..	47	..	1	3	12	31	..	14	10	23	1	13	..	14	..
Other Tubercular Diseases .. ..	29	12	9	3	3	2	..	8	8	13	1	3	..	..	4
Cancer, Malignant Disease .. ..	19	..	..	..	..	13	6	13	2	4	6	7	..	13	..
Bronchitis .. ..	53	7	8	..	..	13	25	16	17	20	..	14	..	14	..
Pneumonia .. ..	26	3	8	3	3	5	4	10	6	10	4	6	..	10	..
Pleurisy .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other Diseases of Respiratory Organs .. ..	4	..	1	..	..	3	..	..	4	..	..	..	..	..	..
Alcoholism { Cirrhosis of Liver	6	..	..	..	..	6	..	2	2	2	..	4	..	4	4
Venereal Diseases .. ..	1	1	..	..	..	..	..	1	..	..	2	..	..	..	2
Premature Birth .. ..	23	23	..	..	..	..	..	5	10	8	..	1	..	..	1
Diseases & Accidents of Parturition .. ..	2	..	..	..	..	2	..	1	1	..	..	1	..	..	1
Heart Diseases .. ..	35	2	..	1	3	16	13	8	18	9	4	14	..	18	..
Accidents .. ..	13	2	..	3	1	4	3	6	5	2	25	1	..	26	..
Suicides .. ..	2	..	..	..	1	1	..	1	1	..	..	2	..	2	2
Acute Rheumatism .. ..	3	..	..	..	1	2	..	1	..	2	..	..	..	..	..
Old Age .. ..	32	..	..	..	..	2	30	9	12	11	..	27	..	27	27
Uncertified .. ..	14	10	..	..	..	2	2	6	2	6	..	1	..	..	1
All other causes .. ..	93	35	4	4	3	31	16	37	23	33	27	19	..	46	..
All causes ..	457	124	50	19	28	134	102	145	149	163	75	113	..	188	..

TABLE V.

## Infantile Mortality during the Year 1909.

Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.			Under 1 week.																												
			1-2 weeks.		2-3 weeks.		3-4 weeks.		Total under 1 month.		1-2 months.		2-3 months.		3-4 months.		4-5 months.		5-6 months.		6-7 months.		7-8 months.		8-9 months.		9-10 months.		10-11 months.		11-12 months.
ALL CAUSES.	Certified ..	..	31	8	5	1	45	12	10	9	7	9	3	4	4	3	5	3	114	10	114	10	114	10	114	10	114	10	114	10	
Common Infectious Diseases.	Certified ..	..	6	..	1	..	7	1	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Diarrhoeal Diseases.	Small-pox ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	Chicken-pox ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	Measles ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	Scarlet Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	Diphtheria (including Membranous Croup) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	Whooping Cough ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Wasting Diseases.	Diarrhoea, all forms ..	..	..	..	..	..	..	..	2	2	4	3	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	Enteritis, Muco-enteritis, Gastro-enteritis ..	..	1	..	..	..	1	1	1	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	Gastritis, Gastro-intestinal Catarrh ..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Premature Birth ..	..	16	3	2	1	..	22	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Congenital Defects ..	..	12	2	1	..	..	15	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Injury at Birth ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Want of Breast-milk, Starvation ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Atrophy, Debility, Marasmus ..	..	6	..	2	..	..	8	6	1	5	..	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Tuberculous Diseases.	Tuberculous Meningitis ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	Tuberculous Peritonitis : Tabes Mesenterica ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	Other Tuberculous Diseases ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Other Causes.	Erysipelas ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	Syphilis ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	Rickets ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	Meningitis (not Tuberculous) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	Convulsions ..	..	1	1	..	..	..	..	2	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	Bronchitis ..	..	..	..	..	..	..	..	..	..	2	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	Laryngitis ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	Pneumonia ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	Suffocation, overlying ..	..	1	1	1	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	Other Causes ..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Totals ..	..	37	8	6	1	52	13	10	11	7	9	3	4	4	3	5	3	124	10	124	10	124	10	124	10	124	10	124	10	

Sub-District of Chesterfield, Population (estimated to middle of 1909) 31,243

Births in the Year { legitimate ..	..	..	850
illegitimate ..	..	..	38
Deaths in the Year { legitimate infants ..	..	..	115
illegitimate infants ..	..	..	9
Deaths from all Causes at all Ages ..	..	..	457

## NOTES TO TABLES IV. AND V.

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- (a) In Table IV., all deaths of "Residents" occurring in public institutions, whether within or without the district, are *included* with the other deaths in the columns for the several age groups (columns 2-8). They are also, in columns 9-15, *included* among the deaths in their respective "Localities" according to the previous addresses of the deceased as given by the Registrars. Deaths of "Non-residents" occurring in public institutions in the district are in like manner *excluded* from columns 2-8 and 9-15 of Table IV.
- (b) See notes on Table I. as to the meaning of "Residents" and "Non-residents," and as to the "Public Institutions" to be taken into account for the purpose of these Tables.
- (c) All deaths occurring in public institutions situated within the district, whether of "Residents" or of "Non-residents," are, in addition to being dealt with as in note (a), entered in the last column of Table IV. The total number in this column should equal the figures for the year in column 9, Table I.
- (d) The total deaths in the several "Localities" in columns 9-15 of Table IV. equal those for the year in the same localities in Table II., sub-columns c. The total deaths at all ages in column 2 of Table IV. equal the gross total of 9-15, and the figures for the year in column 12 of Table I.
- (e) Under the heading of "Diarrhoea" are included deaths registered as due to Epidemic diarrhoea, Epidemic enteritis, Infective enteritis, Zymotic enteritis, Summer diarrhoea, Dysentery and Dysenteric diarrhoea, Choleraic diarrhoea, Cholera (other than Asiatic or epidemic), and Cholera Nostras.

Deaths from diarrhoea secondary to some other well-defined disease are included under the latter.

Deaths from Enteritis, Muco-Enteritis, Gastro-Enteritis, and Gastritis (see under the heading Diarrhoeal

**NOTES TO TABLES IV. AND V.—*continued.***

Diseases in Table V.) in Tables IV. and V. are placed immediately below, but separately from, those enumerated under the heading Diarrhoea as defined by enumeration above. This is particularly important for deaths under one year of age, as many of the deaths in infancy returned as due to Enteritis are really caused by Epidemic diarrhoea. In the course of years, by the adoption of this recommendation, it will be practicable to ascertain the probable amount of transfer between these different headings.

- (f) Under the headings of "Cancer" and "Puerperal fever" are included all registered deaths from causes comprised within these general terms. Thus: Under "Cancer" are included deaths from Cancer, Carcinoma, Malignant disease, Scirrhous, Epithelioma, Sarcoma, Villous tumor, and Papilloma of bladder, Rodent ulcer. Under "Puerperal Fever" are included deaths from Pyæmia, Septicæmia, Sapræmia, Pelvic peritonitis Peri- and Endo- Metritis occurring in the puerperium.
- (g) Under "Congenital Defects" in Table V. are included Atelectasis, Icterus neonatorum, Naval haemorrhage, Malformations and Congenital hydrocephalus.
- (h) Under "Tuberculous Meningitis" are included deaths from Acute hydrocephalus.
- (i) Under "Other Tuberculous Diseases" are included deaths from Tuberculosis, Tuberculosis of bones, joints and other organs, Lupus and Scrofula.
- (j) All [deaths certified by registered Medical Practitioners and all Inquest cases are classed as "Certified"; all other deaths are regarded as "Uncertified."]

In recording the facts under the various headings of Tables I., II., III., IV. and V., attention has been given to the notes on the Tables.

HERBERT PECK,  
March, 1910. Medical Officer of Health.

 REPORT. 

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**Physical Features and General Character of the District.**—The area of the Borough is 1216 acres, 18 of which are covered by water.

The greater part of the town is built upon a tongue of land which projects in an easterly direction from the high land of Newbold and Dunston into the valley of the Rother, the remainder being situate to the north, east and south of this in the valleys of the Hipper and Rother, which join here. The joint stream discharges into the now disused Chesterfield and Stockwith Canal, which overflows in time of heavy rain into its old bed, which contains little but the effluent from the sewage disposal works at ordinary times.

The geological formation is chiefly clay overlying the coal measure sandstone, but to the north the surface is largely composed of stones lying in a loamy soil, while most of the West Ward stands on alluvial deposits.

The Borough is divided for electoral purposes into three wards—the North, which is chiefly residential and mercantile, and contains the Chesterfield and North Derbyshire Hospital and the Union Workhouse, and the South and West, which contain the principal factories and works, though they are also largely residential.

The town is a busy and increasing one, served by three lines of railway, and is the centre of an important colliery and agricultural district. The main industries are the coal and iron trades, but there are several large mills, engine works, potteries, breweries and tanneries. Coal and shale miners formed 22 per cent. of the males engaged in occupations at the time of the last census.

**House Accommodation** is good, but more small houses are needed. There were about a dozen houses rented at from £20 to £30 or more, vacant at the end of the year, but no small one that was not already let for an incoming tenant.

It is necessary for the widening of Lordsmill Street that eight cottages and a larger house should be demolished, but they can be ill-spared at present.

The carrying out of the scheme under the Chesterfield Improvement Act, 1901, by which a

street was to be carried from Lordsmill Street to Park Road would be a great boon as regards traffic, and would do more at the same time to improve some of the poorest class of property in the Borough,—that in the Low Pavement area,—than any measure short of actual demolition. It is not likely that it will ever be possible to do it more cheaply than at present.

Batty's Yard contained five houses, three belonging to one owner and two to another. The air space was sufficient for three only, and notices were therefore served on the owners to provide more or close their houses. Neither owner would close to furnish air space for the property of the other, nor would either buy out the other, the result being that all the houses were closed. No legal proceedings were necessary.

**The Population.**—The population increased from 22,009 at the census of 1891 to 27,185 in 1901.

The natural increment or difference between the numbers of births and deaths that occurred between the last census and the end of 1909 was 3,680, which added to the population at the time of the census gives the population at the end of the year as 30,865.

Estimated according to the method of the Registrar-General, which is based upon the assumption that the population continues to increase in any intercensal period at the same rate as in the previous decade, it was 32,189 at the middle of the year.

Estimated upon the number of inhabited houses, so far as this can be ascertained without an actual count as in 1907, it was **31,243** in the middle of the year, and it is upon this estimate that the vital statistics for 1909 are calculated.

The number of inhabited houses in the North Ward at the end of June was 2,225, in the South Ward 1,733, and in the West Ward 2,113.

The population of the North Ward is estimated at 11,003, of the South Ward at 9,110, of the West Ward at 10,560, and of the Chesterfield and North Derbyshire Hospital and Chesterfield Union Workhouse at 570.

**Birth Rate.**—The 896 births registered as occurring in the Borough included 18 in the Union Workhouse belonging to other districts in the Union, 14 of which were illegitimate. The deduction of these gives 888 as the correct number, which is a **Birth Rate** of **28.4** per 1,000 living, as compared with an average number for the previous

ten years of 891, and an average rate of 31.5 per 1,000.

This is the same rate that obtained in 1906, and the equal lowest hitherto recorded for the Borough. The rate for the whole of England and Wales was 25.6, for the 76 great towns 25.7, and for the 143 smaller towns 24.8. It is compared with those for other neighbouring districts in Table 6.

The rate was 21.8 in the North Ward, 31.0 in the South, and 34.7 in the West.

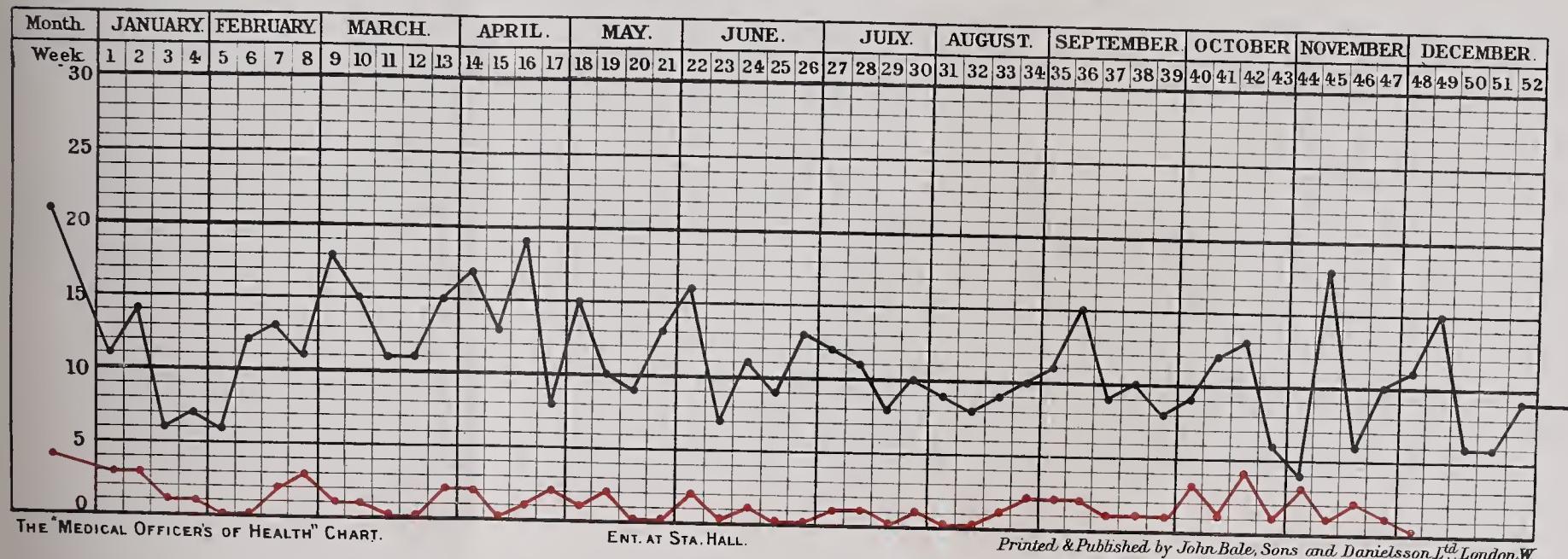
**Illegitimacy.**—The number of illegitimate births after correction for those in the Union Workhouse was 38, equal to a rate of 42.8 per 1,000 births. This is an improvement on the rate of the previous year, which was 44.0, and the lowest recorded for the Borough in (at least) recent times. The rate for the five years ending 1903 was 52.8, and for the five years 1908, 55.9. The rates of England and Wales for the same periods were 39.4 and 39.9 respectively.

The rate was 29.1 in the North Ward, 49.6 in the South, and 46.4 in the West.

**Death Rate.**—The number of deaths registered as occurring in the Borough was 565, which are equal to a Crude Death Rate of 18.1 per 1,000

# BOROUGH OF CHESTERFIELD.

Chart showing the Gross Mortality during each week of 1909.



*Notes:* The black line indicates the deaths from all causes; the red the deaths from the seven principal epidemic diseases.



living, as compared with an average of 20.2 in the previous ten years. Seventy-five of these occurred in the Chesterfield and North Derbyshire Hospital, and 113 in the Union Workhouse. These included 108 belonging to other districts in the Union, 4 to the Blackwell Rural District, 2 to the Clowne Rural District, 1 to Leicester, and 1 to Sheffield, all of which were accepted by the Medical Officers of Health of the districts to which they belonged, and included in their returns.

The deduction of these and the addition of the deaths of 8 persons belonging to the Borough, who died in public institutions outside it gives 457, 233 of males and 224 of females, as the number, corrected for public institutions only, to be attributed to the Borough. This number is equal to a **Death Rate of 14.6 per 1,000 living**, as compared with an average rate of 17.1 in the previous decade. It is the lowest rate recorded for the Borough since its extension in 1892, with the exception of the 13.3 of 1905.

The rate in England and Wales was 14.5, in the 76 great towns 14.7, and in the 143 smaller towns 13.9.

The rate in the North Ward was 13.2, in the South 16.4, and in the West 15.4.

**Other Causes**—Table 4 gives the numbers of deaths from various causes, and 93 as that from “other causes.” The infant deaths are ascribed to their causes in Table V, with the exception of 2 due to chronic eczema and natural causes. The remaining 58 were attributed as follows:—To actinomycosis, 1; aneurism of aorta, 1; appendicitis, 2; arteriosclerosis, 1; cerebral apoplexy, 11; cerebral atrophy, 1; cerebral embolism, 2; cerebral thrombosis, 3; cerebritis chronic, 1; chorea, 1; concussion of the brain, 1; congestion of the brain, 1; disseminated sclerosis, 1; diabetes, 1; embolism, 1; encephalitis, 1; epilepsy, 3; found drowned, 1; gastric ulcer, 1; gastritis chronic, 1; heat apoplexy, 1; hernia, strangulated, 1; intestinal obstruction, 4; locomotor ataxy, 1; marasmus, 1; meningitis, non-tubercular, 1; meningitis, spinal, 1; nephritis, acute, 1; nephritis, chronic, 7; neuritis, 1; peritonitis, 1; pernicious anæmia, 1; pyæmia, acute, 1.

**Epidemic Diseases Death Rate.**—Nine deaths caused by measles, 1 by scarlet fever, 2 by whooping cough, 10 by diphtheria, 1 by enteric fever, and 26 by all forms of diarrhoea at all ages and all forms of enteritis in infants less than a year old are equal to an **Epidemic Diseases Death Rate of 1.57** as compared with the decennial average, 2.39. The inclusion of the one adult

death from enteritis, and two infant deaths from gastritis, would raise the rate to 1.66.

The rate was 0.64 in the North Ward, 2.63 in the South, and 1.70 in the West.

**Infant Mortality.**—The number of deaths of infants under one year of age was 124, which is the smallest since the 120 of 1894, when the population was much smaller, and the 104 of 1905. It compares favourably with the decennial average of 155, and is equal to an **Infant Mortality Rate** of 140 per 1000 births, as compared with an average of 174 in the previous decade. The only other lower rates recorded in recent years were 132 in 1894 and 119 in 1905. The rate compares unfavourable with the 109 of England and Wales, the 118 of 76 great towns, and the 111 of the 143 smaller towns.

The rate in the North Ward was 125, in the South, 149, and in the West, 142.

The rate was 153 among legitimate and 237 among illegitimate children.

The infant mortality formed 27 per cent. of the total deaths as compared with an average of 32 in the previous ten years.

Although the reduction in the infant mortality rates of the last two years must be ascribed in part

to the rainy summers, there is no doubt much of it must be attributed to the efforts of the Health Visitor, Dr. Alexander, whose report is to be found further on.

The causes of death are given in Table V.

**Occupations of Parents.**—Assurance collector 1, blacksmith 1, boot-repairer 1, bricklayer 1, brewer's agent 1, builder (journeyman) 1, builder's foreman 1, butcher (master) 1, carter 2, clerk 1, coachman 1, coal-miner 44, colliery banksman 1, cotton factory hand (male) 1, draymen 3, engine tenter 1, fitter 3, furniture dealer's assistant 1, gardener 1, hawker 2, housekeeper 1, innkeeper 1, ironmoulder 3, joiner (journeyman) 1, labourer 19, lamplighter 1, lithographer 1, milliner's assistant (female) 1, minister 1, motorman 1, painter (journeyman) 1, piano-tuner 1, plasterer 3, plumber (journeyman) 1, police constable 1, pottery hand (female) 2, printer (journeyman) 1, railway labourer 2, railway linesman 1, railway platelayer 3, railway porter 1, spirit merchant's assistant (female) 1, stoker (foundry) 1, tailor's manager 1, tripe-dresser (master) 1, women of no occupation 3, wood-turner 1.

The children of coal-miners formed 29 per cent. of those born in 1909, but their infant deaths were 35 per cent. of the infant mortality; the infant mortality among their children was at the rate of

169 per 1000 births as compared with 127 among the children of those following other occupations.

The rate among children of labourers was 161.

The figures for other occupations are too small to allow of deductions being drawn.

**The mortality between 1 and 5 years of age.**—The fact that 9, or 31 per cent. of the deaths from other tuberculous diseases were in this age-period—4 from tuberculous peritonitis, 2 from general tuberculosis and 3 from tuberculous meningitis—points to the conclusion that the infection was probably derived from the cow's milk which formed a considerable portion of the early diet of the victims. It is believed by many that the infective material taken up by the intestine gradually, though often very slowly, invades other parts of the body until a fatal result occurs.

**Occupations of the Parents.**—Bookmaker's clerk 1, butcher 1, cabdriver 1, cabinet maker 1, clerk 2, coalminer 18, colliery labourer 2, compositor 1, drayman 1, dealer (general) 1, domestic servant 1, football player (professional) 1, hawker 1, iron-moulder 1, joiner (journeyman) 1, joiner (master) 1, labourer 5, painter (journeyman) 1, provision dealer's assistant 2, railway platelayer 1, railway porter 1, secretary 1, tripedresser 1, tripedresser's assistant 1, warehouseman 1, woman of no occupation 1. Two of the children were illegitimate.

TABLE VI.

SYNOPTIC TABLE of the foregoing Rates, the Rates of Neighbouring Districts,  
and the Rates of England and Wales.

Estimated Population	Births	Deaths	Rates per 1,000 living.				Infant Mortality per 1000 Births.
			Epidemic Diseases Death.	Phthisis Deaths	Other Tuber- cular Diseases Deaths.	Respir- atory Diseases Deaths.	
England and Wales	25,600	14.5	1.12	..	..	..	109
76 Great Towns	25.7	14.7	1.42	..	..	..	118
143 Smaller Towns	24.8	13.9	1.08	..	..	..	111
England and Wales, less 219 Towns	25.6	14.5	0.80	..	..	..	98
Bolsover Urban District	33.5	10.4	0.5	..	0.41	..	117
Brampton and Walton Urban District	18.5	14.6	0.6	2.2	0.6	1.25	70
Chesterfield Rural District	30.4	12.4	1.44	0.60	0.49	2.10	121
Clay Cross Urban District	34.3	13.1	0.6	0.7	..	2.8	102
Dronfield Urban District	30.0	15.5	0.25	1.0	0.25	2.0	108
Newbold and Dunston Urban District	36.0	10.9	2.26	1.16	0.4	2.4	111
Whittington Urban District	31.6	16.1	1.03	1.05	0.58	3.5	143
City of Sheffield	28.2	15.0	1.8	1.1	0.4	2.9	119
<b>BOROUGH OF CHESTERFIELD</b>	<b>28.4</b>	<b>14.6</b>	<b>1.57</b>	<b>1.50</b>	<b>0.93</b>	<b>2.65</b>	<b>140</b>
Borough of Chesterfield, average of ten years, 1899 to 1908 ..	28,316	31.5	17.0	2.39	1.11	0.69	174

TABLE VII.

Vital Statistics of the Borough of Chesterfield for 1909, compared with those for the ten years ending 1908, and with those of England and Wales for the same period.

Rates per 1000 living.	Chester-field. 1909.	Chester-field, 1899 to 1908.	England and Wales, 1899 to 1908.
Estimated Population .. .. ..	31,243	28,316	33,588,558
Birth Rate .. .. .. ..	28·4	31·5	27·8
Death Rate (corrected for public institutions) .. .. .. ..	14·6	17·0	16·14
Epidemic Diseases Death Rate .. ..	1·57	2·39	1·34
Infant Mortality per 1000 births.. ..	139·6	173·5	137·6
Small-pox Death Rate .. .. ..	..	0·003	0·014
Measles .. .. .. ..	0·29	0·32	0·32
Scarlet Fever .. .. .. ..	0·03	0·14	0·11
Whooping Cough .. .. .. ..	0·06	0·26	0·30
Diphtheria and Membranous Croup .. ..	0·32	0·17	0·21
Croup .. .. .. ..	0·03	0·03	0·02
Enteric Fever .. .. .. ..	0·03	0·24	0·12
Epidemic Influenza .. .. .. ..	0·06	0·17	0·26
Diarrhoea .. .. .. ..	0·83	1·24	0·68
Puerperal Fever .. .. .. ..	..	0·02	0·05
Erysipelas .. .. .. ..	..	0·02	0·03
Phthisis Pulmonalis .. .. ..	1·50	1·11	1·21
Other Tubercular Diseases .. .. ..	0·93	0·69	0·52
Cancer, Malignant Disease .. .. ..	0·61	0·61	0·87
Bronchitis .. .. .. ..	1·70	1·95	1·28
Pneumonia .. .. .. ..	0·83	0·99	1·26
Pleurisy .. .. .. ..	..	0·014	0·04
Alcoholism, Cirrhosis of the Liver .. ..	0·19	0·25	0·20
Venereal Diseases .. .. ..	0·03	0·08	0·06
Premature Birth .. .. .. ..	0·74	0·69	0·56
Diseases and Accidents of Parturition .. ..	0·06	0·09	0·07
Heart Diseases .. .. .. ..	1·12	1·12	1·47
Accidents .. .. .. ..	0·42	0·35	0·48
Suicides .. .. .. ..	0·06	0·07	†0·10
Acute Rheumatism .. .. .. ..	0·01	0·05	0·08
Old Age .. .. .. ..	1·02	1·40	0·94
Uncertified (per cent of total deaths) ..	3·06	*4·15	*1·62

† Average of 9 years. \* Average of 8 years.

TABLE VIII.

## **Showing the Number of Cases of and Deaths from Infectious Diseases during recent years.**

**Infectious Diseases.**—The number of cases of the notifiable diseases which were reported was 421, being 9 more than in 1904 and double the decennial average. The deaths were 12 as compared with the average 17.2.

The deaths from the non-notifiable of the seven principal epidemic diseases were 40 as compared with the average 52.

**Smallpox.**—No case occurred, for the fourth year in succession.

Two cases were reported at the beginning of the year, but one was a case of chickenpox and the other one of skin disease of an obscure nature.

**Diphtheria and Membranous Croup.**—Houses infected, 105; cases, 115; deaths, 10. The number of cases was four times the decennial average and that of deaths just double. The case mortality was at the rate of 8.7 per cent. as compared with the average 17.5.

Two of the patients whose cases are included were brought from districts outside to the Chesterfield and North Derbyshire Hospital for operation and died there; their deaths are not included among those of the borough. One patient who also had scarlet fever died at Penmore Hospital.

The number of cases in the West Ward nearly equalled that of the rest of the town.

The number of cases in each month from the beginning of the year were :—5, 14, 17, 12, 13, 6, 10, 11, 6, 7, 6, 8.

There is no doubt that the reduced mortality is principally due to the increased and increasing use of antidiphtheritic serum and not to the disease being of a milder type than formerly. The serum is provided free of charge to registered medical practitioners for use within the borough.

**Scarlet Fever.**—Houses infected, 219; cases, 272; death, 1. The number of cases was  $2\frac{1}{2}$  times that of the decennial average and the largest in recent years except the 291 of 1904. The case mortality was .4 per cent. as compared with the average 3.9, showing the type of the disease to have been a mild one.

More than half the cases were in the West Ward.

The following were the number of cases in each month from the beginning of the year :—12, 9, 10, 14, 15, 30, 35, 22, 26, 27, 50, 22.

The majority of the cases in June appeared to be connected with the Infant Departments of the Schools in the West Ward, in one of which a

patient in the desquamating stage was found on June 22nd. The children in the departments were examined not less often than once weekly for more than a month before the summer holiday with the result that several other suspicious cases were found and placed under observation.

**Enteric or Typhoid Fever.**—Houses infected, 6; cases, 10; death, 1. Two of the patients belonged to other districts and were brought to public institutions in the borough on account of illness.

The 8 cases attributable to the town were only about one-fourth of the decennial average and the mortality was less than one-sixth. The case mortality was 12.5 per cent. as compared with the average 22.3.

Three of the cases were in one house in Schofield's Yard. The origin of the disease was not ascertained in any case. Several cases were not enteric fever which were notified as such.

**Erysipelas.**—Houses infected, 19; cases, 21; deaths, 0. Two cases were those of persons taken into public institutions from outside the district on account of the disease complicated with injuries.

The decennial average is 31.1 and the mortality 0.6.

**Puerperal Fever.** — Houses infected, 6; cases, 6; deaths, 0. One case occurred at the Union Workhouse. The number was the largest notified hitherto. They occurred in different parts of the town at different times of the year in the practice of different midwives and were apparently unconnected.

Particulars of the cases are now reported directly by the notifying medical practitioner to County Council, the midwives supervising authority, and inquired into by the County Inspector of Midwives.

**Preventive Measures.** — The infected house is visited by a sanitary inspector as soon as the case is reported and inquiry made as to its origin. Instructions to prevent spreading are given verbally and in printed form. Scarlet fever and enteric fever patients are removed to Penmore Hospital when the parents or guardians permit, except in the comparatively few cases where effective isolation can be obtained. It is seldom that objection is taken to removal. After removal of the patient or the termination of the case, the sickroom is disinfected with formaldehyde and the bedding and other infected articles disinfected by high pressure steam at Penmore Hospital.

In one case where objection was made to the removal of a patient, the father desired the removal

of two later patients who had acquired the disease from the first. It was out of the question to remove two of the patients and to leave one at home and it was not done. The father communicated with the Local Government Board, who, after inquiry, supported the Medical Officer of Health. Eventually the two later patients were removed after the convalescence of the first and the sickroom disinfected.

**Bacteriological Examinations.**—These were made at Birmingham University at the expense of the County Council for the earlier part of the year and afterwards at the laboratory established at Derby by that body. One hundred and eight specimens from doubtful diphtheria patients were sent, which gave 28 positive and 80 negative results; 3 specimens of blood from enteric fever patients gave 1 positive and 2 negative results while 6 of 7 specimens of sputum from phthisis patients gave positive results. There were also sent 19 diphtheria and 4 enteric fever specimens, which gave 6 and 1 positive results respectively.

**Hospital Accommodation.**—Penmore Isolation and Newbold Small-pox Hospitals are the property of the Chesterfield Joint Hospital Committee, which consists of representatives of the Brampton and Walton, Newbold and Dunston,

and Whittington Urban District Councils, and the Corporation of Chesterfield.

Penmore Hospital provides accommodation for 16 scarlet fever patients in four wards, two of which are single bed wards for paying patients or serious cases; for ten enteric fever patients in two wards; while the isolation block has four beds in three wards for patients who have to be kept under observation. The floor-space, wall-space and air-space are sufficient to allow of these numbers being increased to a total of 35 if necessary. The scarlet fever block has a large "sun room" for the use of convalescent patients in inclement weather.

There are also an administrative block, steam laundry, disinfecting block with a Washington-Lyon's steam disinfector, discharge rooms, ambulance and bedding van sheds, stable and mortuary. The hospital and grounds occupy about three acres of land and there are nine acres in reserve for possible extensions.

Infected articles are removed, disinfected and returned free of charge on application being received from the sanitary officials of the constituent authorities.

Newbold Hospital (two miles from the town) provides accommodation for 22 patients in two wards, one of which is fitted with red glass windows.

It has a small administration block, providing accommodation for the caretakers and one nurse, and a wash-house and mortuary. It has a water supply from the mains of the Chesterfield Gas and Water Board, and a small sewage disposal works on the bacterial purification system. Disinfection of infected articles is done at Penmore Hospital.

The charge to constituent authorities for the maintenance of patients in the hospitals is 1s. 6d. per diem, and 3s. for those from other districts and the Union Workhouse.

Patients from the North Derbyshire Hospital District are admitted under an agreement between the Commissess under which patients from the district of either can be admitted to the hospitals of the other. This arrangement can be suspended temporarily by either Committee if there is reason to expect a serious outbreak in its district.

**The Work at Penmore Hospital in 1909.**—There were in the Hospital at the beginning of the year, 11 scarlet fever and 3 enteric fever patients belonging to the Borough of Chesterfield, 1 scarlet fever patient to the Whittington Urban District, and 2 scarlet fever patients to the North Derbyshire Hospital District.

There were admitted from the Brampton Industrial Schools 5 cases of scarlet fever, and 2 of

scarlet fever complicated with diphtheria ; from the Borough of Chesterfield, 138 cases of scarlet fever, 5 cases of scarlet fever and diphtheria, 3 cases as scarlet fever which were not scarlet fever, 2 cases of enteric fever, and 1 case of pneumonia as enteric fever ; from the Newbold Urban District, 1 case of scarlet fever ; from the Whittington Urban District, 13 cases of scarlet fever, 4 cases of enteric fever, and 1 case of pneumonia as enteric fever ; from Mount St. Mary's College, Renishaw, 20 cases of scarlet fever, and 3 cases of scarlet fever and diphtheria ; from the North Derbyshire Hospital District, 11 cases of scarlet fever, 1 case of scarlet fever and diphtheria, 1 case of enteric fever, and 2 cases of pneumonia as enteric fever ; from the Hospital, 1 case of scarlet fever in a nurse from the Victoria Home for Nurses, Chesterfield, who contracted the disease in the course of her duty. Total, 189 cases of scarlet fever, 11 cases of scarlet fever and diphtheria, 3 cases admitted as scarlet fever which were not scarlet fever, 7 cases of enteric fever, and 4 cases of pneumonia admitted as enteric fever. Grand total 214.

None of the diphtheria cases were recognised before admission.

There were discharged, having recovered, 164 scarlet fever patients, 10 scarlet fever and diphtheria patients, and 5 enteric fever patients ;

also 7 patients who had not had the diseases for which they were admitted. Five scarlet fever patients were transferred to Dronfield Hospital, 1 enteric fever and 6 scarlet fever patients to Morton Hospital, and 1 scarlet fever patient to Mount St. Mary's College. Three scarlet fever, 1 scarlet fever and diphtheria, and 1 enteric fever patients died.

There remained in the Hospital at the end of the year, 24 scarlet fever patients belonging to the Borough of Chesterfield, and 3 to the Whittington Urban District.

**Summary.**—Patients in the Hospital at the beginning of the year, 17; admitted, 214; discharged, 186; transferred to other Hospitals, 13; died, 5; in Hospital at the end of the year, 27.

The patients admitted during the year and those who were in Hospital at its commencement belonged as follows:—To the Brampton Industrial Schools, 7; the Borough of Chesterfield, 163; the Newbold and Dunston Urban District, 1; the Whittington Urban District, 19; Mount St. Mary's College, 23; the North Derbyshire Hospital District, 17; and the Staff, 1.

**The Non-Notifiable Epidemic Diseases.**—The cases other than those of diarrhoea and phthisis pulmonalis that came under notice were

those reported by the School Attendance Officers, and comprised the following cases :—measles, 122 ; whooping cough, 8 ; mumps, 11 ; chickenpox, 6 ; ringworm, 13 ; other skin affections, 24 ; total 184.

**Measles and Whooping Cough** caused 9 and 2 deaths respectively as compared with the decennial averages, 9.2 and 7.5. Warning hand-bills giving advice as to isolation were sent to all houses known to be infected.

**Diarrhoea, Enteritis and Gastritis** have now separate headings in Table 4, and in the case of deaths of infants in Table 5 also.

The total number was 29 as compared with the decennial average 43, being one of the lowest recorded.

This happy condition of things is to be attributed in large part to the showery summer. The number of days in the four months ending October, on which rain fell at Chesterfield Gas-works was 65 as compared with the average for the previous ten years of 47. Frequent showers lay the dust, cool the ground, and prevents the multiplication of flies and the micro-organisms they carry from the privymiddens and other receptacles of the filth in which they breed.

The fact that the decennial average from this cause is nearly double that of England and Wales,

and that from enteric fever is double, is to be attributed to the existence of what is euphoniously called the conservancy system. These rates will keep high so long as the percentage of houses provided with privymiddens is high, and will fall when it falls. There is no getting away from this fact, which has been proved over and over again by the experience of other towns.

One hundred and ninety-five waterclosets were installed during the year, including 58 in new houses. This rate of progress is slow, and should be accelerated under section 39 of the Public Health Acts Amendment Act, 1907.

**Medical Inspection of School Children.—**  
The Medical Officer of Health is also the Chief Medical Inspector of School Children, but the actual inspections and book-keeping are done by his assistant, Dr. Alexander.

**Tuberculosis.—**Phthisis pulmonalis or consumption of the lungs caused 47 deaths, or more than one-ninth of the whole (457); other tuberculous diseases caused 29 more, so that “the white scourge” was responsible for 76 deaths, equal to 16.6 per cent or one-sixth of the whole.

Twenty-two of the deaths were those of children less than five years of age, as compared with 21 in 1908.

The death-rate from phthisis was 1.50 per 1,000, as compared with the decennial averages 1.11 for the Borough and 1.21 for England and Wales; the rate from other tuberculous diseases was 0.93 as compared with the averages 0.69 for the Borough, and 0.52 for England and Wales.

There is no apparent cause for this sudden great increase unless it be the inclement weather of the summer.

The occupations of the 23 males upwards of 15 years of age who died of consumption of the lungs were as follows:—Beerhouse keeper 1, brewery labourer 1, coal-miner 2, colliery labourer 2, general dealer 1, greengrocer 1, hawker 1, iron-monger's assistant 1, labourer 5, no occupation 1, ostler at public house 1, painter's apprentice 1, patternmaker 1, railway labourer 1, stonemason 2, surveyor 1; while of the 20 females, upwards of 15 years of age, 12 were married women of various classes living at home, 4 were daughters living at home and following no occupation, 1 an asbestos factory hand, 2 paper box hands, and 1 a net mender.

There were two deaths in two houses,—a mother and daughter, and an occupier and lodger.

The Health Committee resolved, after consideration of the last annual report, to adopt a

compulsory system of notification in addition to the compulsory notification of poor-law cases, but as the Local Government Board did not see their way to allow this, a voluntary system was adopted and came into force in December, the usual notification fee being paid.

Twenty poor-law cases in the Borough were notified,—5 in the North Ward, 11 in the South, and 4 in the West, of which 13 were removed to the Workhouse Infirmary. Seven cases from other districts were also admitted to that institution.

Eight cases were reported by medical practitioners under the voluntary notification system,—4 in the North, and 4 in the South Ward.

All the houses were visited and particulars taken of the cases; instructions to prevent spreading were given verbally and in both printed and pictorial form. Sputum flasks and disinfectant fluid were supplied to those in needy circumstances, who formed practically the whole.

When a case terminated fatally or a patient removed, the rooms which had been used by him were disinfected with formuline vapour.

**Water Supply.**—Water is supplied by the Chesterfield Gas and Water Board whose area of supply includes also the urban districts of Newbold

and Dunston and Whittington and part of the Chesterfield Rural District.

The greatest part is collected on a gathering ground above the Linacre reservoir of 1,386 acres, but there are other works as given below, while a supply can be obtained in time of need from the mains of the Chesterfield Rural District Council.

The water contains too much vegetable matter to be considered a first-class supply but is now filtered. It was found recently (in January, 1910) that the high level supply has plumbo-solvent action, which is remarkable, for many tests for lead in the water from house service pipes in previous years gave absolutely negative results. The low level supply has not this action. These facts have been communicated to the Gas and Water Board.

The following information was supplied by the Board :—

The waterworks consists of three reservoirs and filters at Linacre, and those at Holymoorside, Walton, Wadshelf, Cutthorpe and Old Mill.

The storage capacity of the three reservoirs is :—Upper Linacre, 126,300,000 gallons; Middle Linacre, 90,000,000; Lower Linacre, 31,000,000.—Total, 247,300,000 gallons (or 252 days' supply).

The average daily consumption has risen to 980,000 gallons.

Some other and the financial figures are given in the Minutes of the Corporation for November, 1909.

**Sewage Disposal.**—The average dry weather flow is 625,000 gallons per diem as compared with nearly a million and a quarter before the leaks in the sewers were sought for and repaired.

The sewage on reaching the works passes through a silt chamber, duplicated, where the diminished rate of flow permits of the deposition of the heavier solid matter in suspension. It then goes through a screen which removes the large floating and suspended matters and enters the septic tanks. These are open, three in number, and have each a capacity of 223,200 gallons. Two are in use at once while the third is being cleaned. The solid organic constituents of the sewage are liquified in these, from which the sewage flows to the pumping station, where it is raised by a pump to a height sufficient to allow of its flowing by gravitation to the filters. These are 18 in number and have a cubical capacity of 36,156 yards, capable, at the rate of 84 gallons per cubic yard, of purifying 3,037,140 gallons of sewage.

Three storm filter-beds of an aggregate capacity of 5,236 yards were constructed in the course of the year.

The steam power for pumping the sewage is generated by the refuse destructor, the clinker from which supplies the filtering material. The destructor is shut down at the week-end, when the sewage is raised by electric power. The sludge from the tanks is mixed with lime and pressed in squeegees, and sold to farmers.

Another pair of squeegees were installed during the year at a small cost, being bought second-hand, though almost new, from another sanitary authority.

**Dry Refuse Disposal.**—There were removed 12,747 loads of refuse at 9,828 emptyings. Fifty-two loads were taken to farms outside the borough, five loads of clean ashes to a tip and the remainder to the destructor.

The cost of removal was £1613 as compared with £1693 in 1906, £1636 in 1907, and £1584 in 1908. The cost per 1000 of the population was £51 13s. as compared with £51 12s. 3d. in 1908, and £58 10s. when the work was done by contractors, and not so satisfactorily as at present.

The number of houses with dustbins increased to 1168 from 973 in 1908 and 820 in 1906. Some

of the reduction of the cost of scavenging must be attributed to the increasing use of moveable receptacles for refuse, for it costs about 2s. a year less to scavenge a house with a dustbin and water closet than one with a privy-midden.

The four-celled Horsfall destructor continues to give satisfaction.

**Systematic Inspection.**—Houses were visited and inspected as given hereunder and any nuisances found at them were dealt with. A list of other inspections is given in Table IX.

**North Ward.**—Albert Street 16, Albion Road 3, Alexandra Road 7, Ashgate Road 3, Avondale Road 4, Brewery Street 3, Canal Wharf 4, Cobden Road 8, Compton Street 3, Devonshire Street 6, Durrant Road 9, Foljambe Road 6, Highfield Road 3, Higher Albert Street 4, Holywell Street 11, Newbold Road 8, Princess Street 3, Prospect Street 60, Rutland Road 3, Sheffield Road 43, Soresby Street 7, St. Helen's Street 11, Victoria Street 17.—Total 242. **South Ward.**—Alma Street 3, Beetwell Street 56, Boythorpe Lane 40, Church Lane 4, Derby Road 21, Elder Yard 5, Elton Street 11, Eyre Street 10, Hadfield Town 7, Hipper Street 15, Hollis Lane 11, Lordsmill Street 19, Low Pavement 140, Mill Street 6, Park Road 27, Saltergate 4, South Street 21, Spital Road 14,

Station Road 16, St. Mary's Gate 21, Valley Road 13, Vicar Lane 13, Wheeldon Lane 50.—**Total** 527. **West Ward.**—Alma Street 24, Bank Street 5, Barker Lane 79, Bobbin Mill Lane 3, Catherine Street 3, Chatsworth Road 97, Chester Street 39, Charles Street 3, Chapel Lane 8, Factory Street 4, Furnace Lane 10, Gipsy Lane 3, Hipper Street 3, John Street 14, Little Common 4, New Hall Road 3, Old Hall Road 6, Old Road 27, Shipley Street 16, Stirland Street 14, Storrs' Road 5, Upper Moor Street 5, Victoria Street 19, Wasp Nest 5, Wheatbridge Road 6.—**Total** 405. **Grand Total** 1174.

**Common Lodging-Houses.**—The fourteen Houses on the register were frequently visited by the police under whose supervision they are, as well as by the sanitary officials, and found in a satisfactory condition.

**The Market and Food.**—The market was visited weekly, and the food exposed for sale examined. The quality is superior in quality to what was formerly exposed and there is no doubt that this is due to the severe penalties imposed in 1907 upon persons convicted of exposing unsound food for sale.

No seizure was necessary, but there were surrendered 12 boxes of kippers, 2 boxes of herrings, 11 stones of codfish, 3 stones of haddock, 3 stones

of shrimps, 8 stones of tomatoes and 23 hampers of Brussels sprouts.

**Food and Drugs Acts.**—Eighty-five samples of food and drugs were purchased and submitted for analysis to the Borough Analyst, Mr. Scott Smith, F.I.C., of Sheffield. They comprised 41 of milk, 6 of cream, 19 of butter, 5 of cheese, 1 of coffee, 2 of lard, 2 of pepper, 1 of mustard, 2 of whisky, 1 of gin, 1 of rum, 2 of sweet spirit of nitre, 1 of castor oil, and 1 of friars' balsam.

Three samples of milk were of "superior quality," 17 were "genuine," 19 of "fair quality," and 2 "deficient in fat." Legal proceedings were taken against the vendors of the last mentioned, but the cases were dismissed on payment of costs, 15s. and 18s. The samples of food and that of castor oil were genuine; the sample of friars' balsam was prepared in accordance with the directions of the British Pharmacopeia; and the alcoholic spirits at the proper limit of strength. One sample of sweet spirit of nitre was genuine, but the other was deficient in the most active principle, ethyl nitrite. Proceedings were taken against the vendor of the latter, but the case was dismissed on payment of costs, 5s. 6d.

**Slaughter-houses.**—There are 20 registered for cattle and sheep, 9 for pigs only, and 2 for

cattle, sheep and pigs. Seven of the first mentioned are the property of the Corporation, and have been improved during the year by the addition of "pining" houses, but the remainder are private property.

The slaughter-houses were frequently visited, and always found in a satisfactory state except immediately after a killing. The inspectors have witnessed the slaughter of some hundreds of animals but found none to be diseased. Disease among animals appears to be comparatively rare in the district.

#### **Dairies, Cowsheds and Milk-shops.—**

There are 11 cowsheds in the town, housing 85 cows. They were visited and inspected by the Medical Officer of Health, the veterinary inspector, and the inspectors of nuisances, and found in a satisfactory condition, and the animals in them healthy.

The sheds are kept in a much better state than was formerly the case, and the cows are usually groomed,—a practice almost unheard of a few years ago, but which is spreading downwards from the better class of cowkeepers. Attention to the personal cleanliness of milkers is also on the increase.

The four milk-shops in the town were found clean and in good order.

The quality of the milk supply was frequently tested by the taking of samples. (See under Food and Drugs Acts).

**Ice Cream Shops**—These were frequently inspected and found clean, and in good order.

**Factories and Workshops.**—These were visited, inspected, and found in good order. A further report on them is appended.

#### **REPORT OF ASSISTANT TO MEDICAL OFFICER OF HEALTH AND HEALTH VISITOR.**

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TO THE CHAIRMAN AND MEMBERS OF THE  
HEALTH COMMITTEE.

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HEALTH OFFICE,  
CHESTERFIELD.

January, 1910.

Gentlemen,

It gives me much pleasure to submit my report for the year ending, 31st December, 1909. The notification of Births Act came into force in

the Borough in May, 1908, although no annual report was made for that year.

Total Births notified	....	....	879
Still Births	....	....	33
Died before the visit	....		36
No visit necessary	....		53
Requested not to visit			9
Twins	....	....	6
First visits	...	....	728
Breast fed	....	....	666
Partially hand fed	....		21
Hand fed	....	....	41
Doctor advised	....		13
Weak at Birth	....	....	30
Repeat visits	....	....	723
Partially hand fed	....		20
Hand fed	....	....*	61
Removed out of Borough			53
Total number of visits	....	....	1451.

From April till August, Miss Pooley, a nurse, resident in the town, assisted with the visiting. During that time, she made 57 first, and 203 repeat visits.

Thirteen enquiries have been made into deaths of children.

The mothers are visited as soon as possible after the tenth day. In this way, interference with the doctor or midwife attending the case is obviated. The midwives must attend the case for 10 days, and are responsible for the mother and child during this time.

At the first visit, enquiry is made as to the feeding of the child, and in cases where the mother is not feeding the child properly, instructions as to the proper method are given. If it is found that a doctor is necessary, the mother is asked to seek medical advice.

Revisits are made to all bottle-fed children, to all first babies, and to any others where any suspicion of improper feeding arises.

The mothers are beginning to realise the importance of breast feeding, and also the importance of feeding the children at regular intervals.

It is to be noticed from the returns that 33 children were still born, 36 died before the visit, and 30 were weak at birth. From these figures it is evident that, in order to have healthy children at birth, the health and nourishment of the mother during pregnancy must be attended to.

A few months ago, there was started at "The Settlement" the nucleus of a "school for mothers."

This is held once a fortnight. The children are weighed and instructions given to the mother as to feeding.

Already, 15 to 20 children have been seen at "The Settlement." As this becomes more generally known it should prove a great assistance in the working of the Act.

Believe me,

Your obedient servant,

BETHIA S. ALEXANDER

(Assistant Medical Officer).

TABLE IX.

**Summary of Work done by Inspectors of Nuisances  
during the Year 1909.**

Nature of Cases dealt with.	Ward.			Total.
	North.	South.	West.	
Visits to premises where Phthisis cases have occurred .. ..	34	57	47	138
Inspection of dwelling-houses ..	242	527	405	1174
Visits to premises where Zymotic cases have occurred .. ..	303	280	727	1310
Inspection of premises where offensive trades are conducted	47	81	10	138
.. workshops .. ..	91	116	46	253
.. slaughter-houses ..	61	232	85	378
.. cowsheds and dairies ..	34	30	121	185
.. bakehouses .. ..	24	37	25	86
.. common lodging-houses	45	87	15	147
Re-inspection of work in progress for abatement of nuisances ..	586	484	539	1609
House drains tested with smoke ..	14	2	4	20
Total number of Inspections of premises .. .. .. ..	1481	1933	2024	5438
Houses disinfected after Phthisis ..	20	20	25	65
Number of houses disinfected after cases of infectious diseases ..	82	78	170	330
Number of complaints from public investigated .. .. .. ..	55	54	48	157
Number of notices issued { legal .. .. .. ..	39	39	104	182
for abatement of nuisances { informal .. .. .. ..	211	212	195	618
Dirty Houses cleansed and lime-washed .. .. .. ..	5	23	7	35
Houses overcrowded .. .. .. ..	4	4	13	21
Waste pipes connected to drains ..	2	17	8	27
Drains obstructed .. .. .. ..	31	21	43	95
Defective traps and drain inlets ..	52	29	42	123
Insanitary privies and middens ..	34	21	42	97
Insufficient closet accomodation ..	3	0	0	3
Insanitary privies converted into water closets .. .. .. ..	23	11	7	41
Water closets defective .. .. .. ..	24	32	18	74
Yard surfaces in bad repair .. .. .. ..	33	23	52	108
Eaves and downspouts defective .. .. .. ..	35	51	55	141
Urinals repaired and altered .. .. .. ..	1	4	2	7
Animals improperly kept .. .. .. ..	1	2	1	4
Offensive accumulations .. .. .. ..	2	13	9	24
Total number of nuisances .. .. .. ..	250	251	299	800
.. .. .. .. abated	248	250	293	791

TABLE X.

## Giving Summary of the Sanitary Work of Recent Years.

TABLE XI.

**Number of Bathers and Income at Baths from January to December, 1909.**

Month.	2d.	3d.	4d.	6d.	Bathers. 1909.	Income. 1909	Bathers. 1908	Income. 1908
January ..	67	207	338	59	671	£ 10 s. d. 10 5 1	656	£ 10 s. d. 10 1 11
February ..	71	249	371	62	753	11 8 9	739	11 11 0
March ..	73	237	333	64	707	10 14 5	685	10 10 8
April ..	153	454	642	127	1376	20 16 6	918	14 4 3
May ..	129	380	675	167	1351	21 5 0	1536	23 18 6
June ..	126	332	538	124	1120	17 5 4	1521	23 14 0
July ..	191	494	833	196	1714	26 11 0	2063	31 18 4
August ..	305	432	652	185	1574	23 8 8	1269	19 13 10
September ..	140	317	495	109	1061	16 2 1	956	14 13 7
October ..	141	371	554	107	1173	17 14 5	1337	20 14 3
November ..	74	251	350	62	737	11 2 9	757	11 7 8
December ..	86	269	388	79	822	12 10 5	919	14 1 5
Totals ..	1556	3993	6169	1341	13059	£199 4 5	13356	£206 9 5

662 of this total were women bathers.

**Table showing the Number of Bathers using the Baths on each Day of the Week.**

Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Total.
2337	860	819	823	1134	2851	4235	13059

TABLE XII.

Statement of Income for the Year ending the 31st day  
December, 1909, at the Lavatories, New Square.

MONTH.	Male W.C.'s	Female W.C.'s	Male Lavatory.	Total, 1909.			Total, 1908.		
				£	s.	d.	£	s.	d.
JANUARY ..	..	6 19 8	4 4 8	0	4	11	11	9	3
FEBRUARY ..	..	5 10 5	4 11 4	0	6	11	10	8	8
MARCH ..	..	6 3 7	3 17 3	0	6	9	10	7	7
APRIL ..	..	5 19 3	3 14 9	0	9	10	10	3	10
MAY ..	..	6 15 8	4 11 6	0	10	7	11	17	9
JUNE ..	..	4 17 2	3 18 11	0	7	2	9	3	3
JULY ..	..	6 6 10	3 12 6	0	7	4	10	6	8
AUGUST..	..	6 8 8	3 18 11	0	12	3	10	19	10
SEPTEMBER ..	..	6 1 9	4 2 1	0	7	2	10	11	0
OCTOBER ..	..	5 16 0	3 15 1	0	5	8	9	16	9
NOVEMBER ..	..	5 9 1	4 17 10	0	5	7	10	12	6
DECEMBER ..	..	4 17 3	4 17 11	0	4	7	9	19	9
TOTALS..	..	£71 5 4	£50 2 9	£4	8	9	£125 16 10	£136 17 5	

TABLE XIII.—METEOROLOGICAL RECORD, 1909.

Rain Gauges, 5 inches in diameter at Gasworks and 8 inches at Linacre reservoir, 1 foot above ground; 279 feet above sea level at the Gas Works and 500 feet at Linacre Reservoir. Temperature taken in the shade and 4 feet from the ground.

MONTHS.	Temperature of Air during the Month.			Mean Tempera- ture of air.	Rainfall.			Linacre Reservoir		
	Mean of		Number of days on which rain fell.		Amount collected in inches.					
	Highest	Lowest			All highest	All lowest				
January ..	52	18	42.6	30.7	36.6	12	1.31	1.68		
February ..	55	18	43.8	28.4	36.1	6	.64	.76		
March ..	57	12	43.0	31.0	37.0	10	3.43	4.01		
April ..	71	24	58.2	36.0	47.1	8	1.13	1.75		
May ..	78	28	61.7	39.5	50.6	11	1.41	1.71		
June ..	71	33	61.4	46.0	53.7	15	2.58	3.34		
July ..	73	39	65.9	51.8	58.8	14	2.30	3.32		
August ..	86	41	70.2	50.2	60.2	12	2.12	2.46		
September ..	67	34	60.1	46.7	53.4	20	1.99	2.22		
October ..	68	21	57.6	43.4	50.5	19	3.22	4.05		
November ..	58	24	47.0	34.4	40.7	4	.24	.58		
December ..	54	7	43.3	32.4	37.9	22	5.65	6.77		
Entire Year ..	86 (a)	7 (b)	54.5	39.2	46.9	153	179	26.02 (c)		
								32.65 (d)		

(a) August 13th. (b) December 22nd. (c) Greatest amount on one day, 1.18 inches, on March 6th.

(d) Greatest amount on one day, 1.40 inch on June 24th.  
Supplied by the courtesy of the Gas and Water Board.

**Annual Report of the Medical Officer of Health for the year 1909 for the Borough of Chesterfield on the administration of the Factory and Workshop Act, 1901, in connection with Factories, Workshops, Laundries, Workplaces and Homework.**

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**1.—INSPECTION.**

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories (including Factory Laundries) ..	113	4	0
Workshops (including Workshop Laundries)	253	33	0
Workplaces (other than Outworkers' premises included in Part 3 of this Report) ..	187	0	0
Total ... ..	553	37	0

**2.—DEFECTS FOUND.**

Particulars.	Number of Defects.			Number of Prosecutions.
	Found.	Remedied	Referred to H.M. Inspector	
Nuisances under the Public Health Acts :—				
Want of Cleanliness .. .. .. ..	18	18	{ 0	0
Want of Ventilation .. .. .. ..	3	3	0	0
Overcrowding .. .. .. ..	1	1	0	0
Want of Drainage of Floors .. .. .. ..	0	0	0	0
Other Nuisances .. .. .. ..	7	7	0	0
Sanitary Accommodation } insufficient .. ..	2	2	0	0
Accommodation } unsuitable or defective .. ..	6	6	0	0
Accommodation } not separate for sexes .. ..	0	0	0	0
Offences under the Factory and Workshop Act :—				
Illegal occupation of underground bakehouse (S. 101) .. .. .. ..	0	0	0	0
Breach of special sanitary requirements for bakehouses (SS. 97 to 100) .. ..	0	0	0	0
Other offences (excluding offences relating to outwork which are included in Part 3 of this report) .. .. .. ..	0	0	0	0
Total .. .. .. ..	37	37	0	0

3.—HOME WORK.

Nature of Work.	Outworkers' Lists, Section 107.						Inspections of Out-workers premises	Outwork in infected premises, Section 109, 110.			
	Lists received from Employers.		Addresses of Outworkers		Received from other Councils	Forwarded to other Councils		Instances	Orders made (Sec. 110).	Prosecutions (Sections 109, 110).	
	Twice in the year	Once in the year	Outworkers	Lists							
	Lists	Con-tract-ors	Outworkers	Lists	Outworkers	Con-tractors	Work-men	Instances	Orders made (Sec. 110).	Prosecutions (Sections 109, 110).	
Wearing Apparel (making, &c.)	6	3	38	1	1	2	1	13	0	0	
Lace, lace curtains and nets	2	2	112	0	0	0	4	50	1	0	
Furniture and Upholstery	..	..	0	0	1	1	0	1	0	0	
Total	..	..	8	5	150	2	2	64	69	0	

4.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year.	Number.
Bakehouses ..	..
Dressmakers ..	..
Milliners ..	..
Joiners, Cabinet Makers and Wood Workers ..	..
Tailors ..	..
Saddlers ..	..
Sugar Boilers ..	..
Smiths ..	..
Boots and Clogs ..	..
Other Trades ..	..
Total number of Workshops on Register	186

